Rapid Recap

Anticoagulation FORUM

ANTICOAGULATION Centers of Excellence

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Aspirin Versus Other Anticoagulants for the Initial Prevention of Venous Thromboembolism Following Elective Total Hip and Knee Arthroplasty: An Umbrella Review and Meta-Analysis

Background: Despite the use of various strategies for VTE prophylaxis after major orthopedic surgery, the optimal approach remains debated. This study reviews aspirin use for VTE prophylaxis following hip and knee arthroplasty.

Methods: Two independent reviewers completed an umbrella review of 19 systematic reviews and meta-analyses on aspirin for VTE prophylaxis following total hip and total knee arthroplasties, extracting data on thromboembolic events, bleeding, and mortality rates. Subgroup analyses of ASA vs. specific AC agents were conducted.

Results: Included studies showed significant variability in aspirin dosage, treatment duration, follow-up intervals, outcome definitions, anticoagulant comparators, and assessment tools. The exceptions to this substantial heterogeneity was major bleeding (OR 0.44; CI 0.38-1.2, I^2=8%) and mortality (OR 1.31; CI 0.86-2.0, I^2=0%). Minor bleeding was noted to be statistically significant, but again with relatively high heterogeneity (OR 0.44; CI 0.27-0.74 I^2=78%).

Rapid Takeaway: VTE prophylaxis strategies following hip and knee arthroplasty vary significantly. More data is needed to compare AC regimens and define optimal aspirin dosing. Until then, individualized risk assessment and shared decision-making remain essential.

J Arthroplasty. 2025 Jun 11:S0883-5403(25)00712-0

Management of AC Therapies in Athletes and Sportspeople: Italian FSCA Diagnosis and Surveillance of the AC Therapies Position Paper

Background: This position paper aims to provide guidance on managing the unique challenges of AC therapy in athletes and sportspeople and raise awareness regarding the unique thrombotic risk factors they may experience.

Summary Recommendations for Athletes:

A. Fib/A. Flutter: CHA_2DS_2-VASc ≥ 2 = Initiate AC therapy (DOAC) per current dosing recommendations. CHA_2DS_2-VASc of 1 = Use case-by-case evaluation.

VTE: Management is the same as for non-athletes: 3 months of uninterrupted AC. DOACS are preferred. Refrain from contact sports, competitive, or high-risk activities, with a gradual return to activity when AC therapy is discontinued.

Intermittent Dosing Regimens/Off-label discontinuous DOAC regimen: Reduces bleeding risk during periods of high physical demand. Requires close collaboration between the athlete, team doctor, and AC clinician. Thrombotic risk is increased, especially for A. Fib and valvular heart disease. DOAC should be stopped 24h before activity (or longer depending on pharmacokinetics), resumed at the next dose if no trauma has incurred, and/or held for 24-48 hours if trauma is experienced.

This paper also includes a classification of sports according to contact and syncope risk, return-to-play protocols, patient education, and suggested treatment modifications for AC use by athletes.

Rapid Takeaway: The use of AC in athletes requires careful risk stratification to balance safety and efficacy. Shared decision making, multidisciplinary collaboration, and ongoing risk assessment are paramount to individualizing AC therapy while following evidence-based guidelines.

Thromb Haemost. 2025 June 24: doi: 10.1055/a-2632-3197

ASH/ISTH 2024 updated guidelines for the treatment of venous thromboembolism (VTE) in pediatric patients

Background: VTE is of low incidence in healthy children but is associated with increased rates of hospitalization. ASH/ISTH released an update from the prior 2018 guidelines for the treatment of venous thromboembolism (VTE) in pediatric patients.

Select Conditional Recommendations (with low certainty of evidence):

Area	Recommendations
Symptomatic VTE	Anticoagulation (AC) is suggested for most pediatric patients, with a few exceptions (see text).
Asymptomatic VTE	Suggests AC or no AC for asymptomatic VTE.
Provoked VTE	Suggests 6 weeks of AC therapy, excluding PE, recurrent VTE, cancer-associated thrombosis, persistent occlusive thrombus at 6 weeks, ongoing risk factors, and/or major thrombophilia or presence of antiphospholipid antibodies.
Unprovoked VTE	Suggests 6-12 months of anticoagulation rather than indefinite AC.
AC Selection	Suggests rivaroxaban or dabigatran may be considered over parenteral anticoagulants or warfarin. If bleeding risk is high, consider using UFH.

See article for recommendations for unusual site thrombosis, indications for thrombolytic use, AC characteristics (Table 4),selection (Figure 2), and dosing (Tables 6-11).

Rapid Takeaway: Despite a 10-fold increase in the number of pediatric patients in clinical trials over the past six years, many recommendations are conditional due to low certainty of evidence, either being derived from expert opinion or extrapolation from adult data, making shared decision-making and future studies imperative.

Check out this Rapid Resource:
Appropriate Use of DOACs in the Pediatric Population

Blood Adv. 2025 May 27; 9(10):2587-2636

Safety evaluation of electrical cardioversion in the presence of LV thrombus

Background: Historically, the presence of left ventricular thrombus (LVT) has been a contraindication to cardioversion due to a lack of data regarding the embolic risk. This study aims to quantify this risk.

Methods: Retrospective single-center study of 39 patients (mean age 60 ± 14 years, 92% male). LVT was confirmed on transthoracic echocardiogram (TTE) within 4 weeks before or 2 days after cardioversion.

Results: Cardioversion indications included atrial fibrillation/flutter (n=14), ventricular arrhythmia (n=14), and defibrillation threshold testing for defibrillator placement (n=11). LVT was primarily described as fixed in most patients (n=36) and mobile in the remaining patients (n=3). Mean time between TTE and cardioversion was 6 ± 6.3 days. In the clinical follow-up period (81 ± 17 days), no embolic complications were reported post-cardioversion.

Rapid Takeaway: While additional larger studies are needed, this small study suggests that electrical cardioversion in patients with LVT may be safe, particularly with fixed LVT. Patients should continue to be assessed for thrombotic risks before cardioversion, including screening for the presence of LVT.

Check out this Rapid Resource: **LV Thrombus**

J Stroke Cerebrovasc Dis. 2025 Jul;34(7):108336

A qualitative evaluation of a large-scale antithrombotic stewardship intervention in the US Veterans Healthcare System

Background: Dual antithrombotic therapy with an antiplatelet and anticoagulant increases bleeding risk. To mitigate this bleeding risk, a multistate network of Veterans Affairs medical centers in the United States implemented a stewardship initiative to reduce inappropriate anticoagulant-antiplatelet therapy. A semi-structured interview was conducted with clinical pharmacists and pharmacy managers who actively participated to capture experiences and potential barriers with antiplatelet deprescribing. This evaluation focused on discussing the results of these semi-structured interviews and identified several key themes to consider before wider initiative dissemination.

Rapid Takeaway:

To maximize the success of dual antithrombotic de-prescribing and other anticoagulation stewardship initiatives, consideration should be given to:

- Collaborate with specialty providers to prevent clinical silos
- Identify a clinical champion to support your initiative
- Establish clear lines of communication
- Set expectations about roles and metrics of success
- Ensure adequate staffing
- Adapt initiatives to local practices

Int J Clin Pharm. 2025 Jun 4. doi: 10.1007/s11096-025-01922-2

Be sure to check out this newly published guideline: 2025 ACC/AHA/ACEP/NAEMSP/SCAI Guideline for the Management of Patients With Acute Coronary Syndromes: A Report of the American College of Cardiology/American Heart Association Joint Committee on Clinical Practice Guidelines

Comprehensive summaries of the most impactful articles from our biweekly literature updates. Includes a short overview and pub med link along with important takeaways from the article. Rapid Recaps are published monthly.

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